### **REMARKS/ARGUMENTS**

These remarks are made in response to the Office Action of May 19, 2005 (Office Action). This response is filed after the 3-month shortened statutory period, and as such, a retroactive extension of time is hereby requested. The Examiner is authorized to charge the appropriate extension fee to Deposit Account 50-0951.

In the Office Action, Claims 6, 7, 9 and 10 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,044,398 to Marullo, *et al.* (hereinafter "Marullo"). Claims 1, 2, 3, 4, 5, 8 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Marullo in view of U.S. Patent No. 6,868,434 to Terranova, *et al.* (hereinafter "Terranova").

Independent Claims 1, 4, 6, 7, 8 9, 10, and 11 have been amended to recite additional aspects of Applicant's invention. The amendments are supported in the specification at page 12, line 15 through page 13, line 16, for example, and throughout the specification. No new matter has been added by virtue of the amendments.

# I. Applicants' Invention

It may be helpful to reiterate certain aspects of Applicant's invention prior to addressing the cited references. One aspect, pertinent to an e-commerce environment, is the empirical validation of an on-going availability of one or more back-end systems used to verify and clear on-line transactions, such as credit card clearing, shipping and handling, tariff computing, and other types of commercial transactions. (See, e.g., Specification, p. 9, lines 1-8.)

One embodiment of the invention, typified by Claim 1, as amended, is a monitoring tool. The monitoring tool includes a placebo transaction dispatcher for dispatching placebo transactions to at least one subscribing e-commerce system, and response collector for collecting responses to the dispatched placebo transactions. The

monitoring tool also includes a logger for computing transaction latency data based upon when a placebo transaction is dispatched to a subscribing e-commerce system, and when a response is received in the collector. The monitoring tool further includes a multi-dimensional status array, such as a two-dimensional array, whose elements are indexed by a URL and sample size of each subscribing e-commerce system.

Each element of the status array includes an indicator indicating that a placebo transaction has been submitted to a corresponding subscribing e-commerce system, an indicator indicating whether a response has been received from the corresponding subscribing e-commerce system, transaction latency data associated with the corresponding subscribing e-commerce system, and an average response time computed for the corresponding subscribing e-commerce system. (See, e.g., Specification, p. 12, line 19 – p. 13, line 6.)

Additionally, the monitoring tool includes an alerter. The alerter operatively alerts a subscribing e-commerce system when computed transaction latency data indicates that an unreliable response condition has occurred in an associated back-end transaction processing system.

#### II. The Claims Define Over The Prior Art

As noted above, independent Claims 6, 7, 9, and 10 were rejected as being anticipated by Marullo. Independent Claims 1, 4, 8, and 11 were rejected as being unpatentable over Marullo in view of Terranova.

Marullo is directed to an Internet website "virtual" browser application that automatically "exercises" and verifies web server applications and scripts. (Col. 4, lines 49 – 54; Abstract.) The exercising and verification is performed, according to Marullo, by simulating a web browser to request, capture, store, and verify data returned from web servers.

Applicant respectfully asserts, however, that Marullo fails to teach, either expressly or inherently, each feature recited in independent Claims 6, 7, 9, and 10, as amended. For example, Marullo fails to expressly or inherently teach the recording of a plurality of elements in a status array indexed by a URL and a sample size for each backend transaction processing system.

Marullo discloses a log file in which is logged a simulated browser request and its corresponding byte count. The log file further permits a count of bytes transferred, a time of transaction, and a throughput or transfer time to be logged. (See Col. 5, lines 1-3; Col. 8, lines 17-55; and Abstract.) The log file in Marullo, however, is not presented as a status array. Marullo is couched strictly in terms of a virtual application browser interacting with a single "banking application." (See, e.g., Col. 6, lines 8-18 and lines 50-55.) It follows that Marullo has no use for, nor does the reference teach, a multi-dimensional status array that is indexed by a URL and a sample size for each different back-end transaction processing system, as disclosed in each of the independent claims, as amended.

The log file in Marullo, not being a multi-dimensional, indexed status array, accordingly, can not contain array elements that include an indicator indicating that a placebo transaction has been submitted to a corresponding subscribing e-commerce system, an indicator indicating whether a response has been received from the corresponding subscribing e-commerce system, or an indicator indicating whether a latency threshold has been exceeded by the corresponding subscribing e-commerce system.

Moreover, nowhere does Marullo remotely suggest that an average response time for each subscribing e-commerce system is determined and stored in an element of a multi-dimensional status array, as further recited in each of the amended independent

claims. Indeed, as noted at page eight of the Office Action, Marullo does not address measuring transaction latency data at all.

Although Terranova is cited as disclosing testing of server latencies using multiple concurrent users of a computer system, Applicant respectfully asserts that Terranova similarly fails to teach or suggest a multi-dimensional, indexed status array. A "setup program" of Terranova creates multiple users on a server in a computer system. (Col. 2, lines 6-7; Col. 4, lines 16-18.) The program of Terranova also creates home directories for the users and populates them with files according to the particular type of a user. (Col. 4, lines 18-20.) The directories so created by Terranova do not constitute multi-dimensional, indexed status arrays, as recited in each of the amended independent claims. More particularly, none of the directories are indexed, least of all indexed according to a URL and a sample size for each back-end transaction processing system.

Instead, as already pointed, each directory is populated with a set of files that corresponds to a particular user's type. (Col. 6, lines 29 – 43.) A "directory enumeration" of the files in a particular user's directory merely lists the files. Again, there is no indexing and none of the entries in the list corresponds to an indicator indicating that a placebo transaction has been submitted to a corresponding subscribing e-commerce system, an indicator indicating whether a response has been received from the corresponding subscribing e-commerce system, or an indicator indicating whether a latency threshold has been exceeded by the corresponding subscribing e-commerce system.

Applicant thus respectfully maintains that neither Marullo nor Terranova, alone or in combination, teaches or suggests each feature of amended independent Claims 1, 4, 6, 7, 8, 9, 10, and 11, and that, therefore, the amended independent claims define over the prior art. Applicant further respectfully submits that whereas Claims 2 and 3 each

depend from amended independent Claim 1, while reciting additional features, these claims, too, define over the prior art.

## III. Applicants' Invention Antedates Terranova

Applicant further respectfully asserts that regardless of what Terranova teaches or suggests, the reference is not prior art as to Applicants' invention. Submitted herewith is Applicant's Declaration pursuant to 37 C.F.R. § 1.131 supporting the removal of Terranova as a reference. Applicant's Declaration is accompanied by a copy of Confidential Invention Disclosure No. BOC8-2000-0046 (hereinafter "Disclosure") entitled "Low-Cost Monitor and Alert Application for Global Merchant Service." The Disclosure demonstrates proof of conception for the claimed subject matter of the Applicant's invention at least as early as April 27, 2000, which predates the August 7, 2000 effective date of Terranova. Additionally submitted herewith is evidence of activity on specific dates that show Applicant's continued diligence from prior to the effective date of Terranova.

The present application, including each claim, is based upon Applicants' Disclosure. Applicant's employer and assignee of the present application, International Business Machines (IBM), establishes rigorous procedures governing the use of such disclosures, generally. The inventor submitted the Disclosure on April 28, 2000, to an IBM Attorney/Patent Professional. IBM's own procedures preclude substantive modification of such a disclosure once submitted, and, as Applicant affirms in the accompanying Declaration, the Disclosure was not substantively modified following its submission to the IBM Attorney/Patent Professional. The inventor reviewed the present application prior to its submission to the U.S. Patent and Trademark Office so as to insure that the claims and subject matter contained therein were fully supported by the Disclosure.

Each of the claims in the application are fully supported in the Disclosure, including the aspects of response, or latency, times and the use of status arrays. (See, e.g., p. 2, paragraph 5.) The Figure contained in the Disclosure is virtually identical to FIG's. 2 and 3 in the application.

Applicant exercised due diligence from prior to the effective date of Terranova continuously to June 22, 2001, when the present application was filed. With respect to Applicant's diligence it is to be noted that, as set forth in the Declaration, once an IBM invention disclosure form is completed, the disclosure is reviewed by an Invention Review Board (hereinafter the "Board") within IBM to determine whether to prepare an application based upon the submitted disclosure. Upon the Board's reaching a decision to prepare an application, outside counsel is selected to prepare the application, and instructions in this regard, together with the IBM invention disclosure form, are conveyed to the outside counsel.

In this instance, during the period between April 28, 2000, and June 22, 2001, the Board conducted an inquiry as to the patentability of the invention and assigned the application to outside counsel to prepare a patent application based on the Disclosure. As is a common practice in the profession, outside counsel prepares cases on a "first come, first served" basis unless a bar date dictates that the preparation be given priority within the work queue. As proof that the present application was included within the work queue and receiving due attention, Applicant provides herewith pages from their Firm Docket regarding the application [outside counsel docket number 6169-190], dated January 2, 2001, March 2, 2001, April 2, 2001, May 2, 2001, and June 2, 2001 (redacted to insure confidentiality of other Firm clients and attached as part of the Composite Exhibit).

Outside counsel iteratively reviewed and revised the drafted application with the inventor. This activity during the pertinent period is consistent with the legal

requirements for a showing of diligence noted, for example, in MPEP § 715.07(a). As proof of diligence-evidencing activities, Applicants refer the Examiner to the following documents which are also contained in Composite Exhibit, attached hereto:

- 1. October 2, 2000, correspondence from IBM requesting the preparation of a patent application based on the Disclosure;
- 2. October 11, 2000, correspondence from the outside counsel to IBM inhouse counsel confirming receipt of the disclosure and instructions to prepare a patent application based thereon;
- 3. May 11, 2001, correspondence from outside counsel to the inventor forwarding a draft of the present application for the inventor's review and facsimile confirmation sheet;
- 4. June 21, 2001, correspondence from outside counsel forwarding the final draft of the application and facsimile confirmation sheet.

Applicant respectfully maintains that the evidence provided clearly establishes reasonable diligence from a time prior to the effective date of Terranova to the filing date of the present application. Applicant further respectfully maintains that the evidence shows that Applicant's diligence was exercised in constructively reducing the invention to practice between the date of the Disclosure, until the filing date of the present application. Accordingly, Applicant respectfully requests that Terranova be withdrawn as a reference.

#### **CONCLUSION**

Applicant believes that this application is now in full condition for allowance, which action is respectfully requested. Applicant requests that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the

Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

Date: September 19, 2005

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